



US Army Corps  
of Engineers®

SAN FRANCISCO DISTRICT

Regulatory Branch  
1455 Market Street  
San Francisco, CA 94103-1398

# PUBLIC NOTICE

NUMBER: 242156N

DATE: October 15, 2007

RESPONSE REQUIRED BY: November 15, 2007

PROJECT MANAGER: David Wickens

PHONE: 415-503-6787

Email: David.M.Wickens@spd02.usace.army.mil

**1. INTRODUCTION:** The Suisun Resource Conservation District, 2544 Grizzly Island Road, Suisun, California (contact: Steve Chappell (707) 425-9302) and the California Department of Fish and Game, 2748 Grizzly Island Road, Suisun, California (contact: Larry Wycoff (707) 425-3828), have applied for a re-issuance of Regional General Permit Number 3 (RGP3), Department of the Army Permit 24215N, that will currently expire on November 15, 2007. RGP3 authorizes the applicants to complete activities with minor environmental impacts, such as maintenance of existing structures and levees and installation of new structures, within the Suisun Marsh, in Solano County, California. The proposed re-issuance of RGP3 would authorize the aforementioned activities until November 15, 2012. The current RGP3 can be provided for review upon request. This application is being processed in accordance with Section 404 of the Clean Water Act (33 U.S.C. 1344) and Section 10 of the Rivers and Harbors Act (33 U.S.C. 403).

## 2. PROJECT DESCRIPTION:

### A. Project Site:

As shown on the attached vicinity map (sheet 1), the Suisun Marsh is located in southern Solano County west of the Sacramento River Delta. It contains over 10% of California's remaining wetlands and is one of the largest contiguous estuarine marshes in the United States.

The marsh is comprised of several islands. Most of the islands are subdivided into various land ownerships. The landowners in the Suisun Marsh include the State of California, non-profit organizations, private hunting clubs which contain up to twenty-five members, and private individuals. As shown on sheet 2, there are 158 separate land ownerships in the Suisun Marsh.

Most of the islands in the Suisun Marsh are ringed with large exterior levees (see sheet 3) which are typically 10 to 12 feet higher than the managed wetlands, 12 feet wide at the crown, and have 2:1 side slopes (sheet 4). Managed wetlands are contained within the exterior levees. Often emergent wetlands (tule wetlands) are found between the sloughs and the exterior levees. Most of the land is managed primarily to provide habitat for ducks and it also provides valuable wetland habitat for other types of wildlife. Some public land is managed primarily for Tule Elk or for endangered species.

On the landward side of the exterior levees in the managed wetlands is usually a series of smaller interior levees which are 2 to 3 feet in height. Often there is an unpaved gravel or dirt road located on the crown of the levees.

Most of the exterior levees in the Suisun Marsh were originally constructed so that people could farm the islands. Levee construction began in the 1850s. When farming became unprofitable the land was converted to managed wetlands. Once the exterior levees were built the diked land began to subside.

Most of the managed wetlands in the Suisun Marsh have subsided below the elevation of mean high water. Therefore, the exterior levees are necessary to prevent these subsided lands from becoming permanently flooded. The interior levees partition areas from each other so that each area can be managed separately.

The interior of most of the islands also contains a series of primary and secondary ditches which are connected to the sloughs by water control structures. As shown on sheet 5, the ditches are trapezoidal, earthen channels. The primary ditches are typically 4 to 4 1/2 feet deep, 12 to 20 feet wide with a 2:1 side slope. Secondary ditches are typically 3 to 3 1/2 feet deep, 6 to 10 feet wide with also with a side slope of 2:1. Often there are also smaller spreader ditches. These ditches are triangular 'V' shaped ditches. These spreader ditches are typically 18 to 24 inches deep.

Water is diverted from sloughs or bays through exterior water control structures into the ditches and is used to seasonally flood the managed wetlands of the islands. At other times, water is actively pumped off the island or is drained through water control structures into the adjacent sloughs or bays. As shown on sheet 6, water control structures consist of a culvert which runs through levee and a mechanism (such as a flap gate) to control the direction and amount of flow through the pipe. The water control structures and channels allow the landowners to control the amount and duration of water on their property.

Interior water control structures allow water to pass through interior levees. These structures connect secondary and primary ditches to each other. Interior water control structures consist of 18 to 48 inch diameter culverts, flap gates, screw gates, weir boxes and flashboard risers. Historically metal water control structures have been used. However, PVC plastic and vinyl are now also being used in some of the water control structures. Interior water control structures enable landowners to manage water levels on adjacent areas on an island differently.

Exterior water control structures are the same as interior water control structures except they are typically larger (24 inches to 48 inches in diameter pipes) and allow water to pass through exterior levees. Exterior water control structures connect sloughs or bays to primary ditches.

## **B. Proposed Permit Renewal:**

The proposed RGP3 renewal would authorize the continued maintenance of the levees, channels and water control structures, installation of some new structures, and placement of fill to counteract subsidence from November 15, 2007 until November 15, 2012. Specifically the permit would authorize the activities described below.

### 1.) ACTIVITIES IN DITCHES

#### a. Excavation from Existing Primary and Secondary Ditches and Creation of New Primary or Secondary Ditches-

The RGP3 would continue to authorize excavation of material from existing primary and secondary ditches. The purpose of this work is to maintain the capacity of the ditches to convey water or to obtain material to be used in levee maintenance. Occasionally a new primary or secondary ditch would be created to improve water management on the ownership. Typical cross sections of these ditches are shown on sheet 5. Under the RGP3 the landowners would continue to be authorized to sidecast material next to the ditch for up to one month. The amount of material each ownership could excavate would be on a sliding scale depending on the size of the ownership.

Size of Ownership (Acres)	Annual Limit of Excavation Per Year in Cubic Yards
---------------------------------	----------------------------------------------------------

Under 50	1,000
50 to 249	2,000
250 to 499	3,000
500 to 749	4,000
750 to 999	5,000
1,000 & over	6,000

The excavation is usually done with either a bucket excavator or occasionally with a dragline. Most of the excavated material is used in another authorized activity (i.e. raising the elevation of the managed wetlands, or levee repair). Any remaining material would be hauled to a disposal site outside of Corps jurisdiction.

#### b. Maintenance of Existing Spreader Ditches and Creation of New Spreader Ditches

Spreader ditches are created and maintained by using a plow. Under the RGP3 the permittees can remove material from existing spreader ditches and create new spreader ditches. Spreader ditches are much smaller than primary or secondary ditches. Spreader ditches are used to either flood high areas or drain low areas in the managed wetlands. The amount of new spreader ditches the permittees would continue to be able to create would be based on a sliding scale based on size of the ownership in accordance with the table below. The permittees would be authorized to leave material sidecast on adjacent wetlands during the creation of spreader ditches.

Individual Ownership (Acres)	Annual Linear Feet of New Spreader Ditches
------------------------------------	-----------------------------------------------

Under 50	2,000
50 to 249	6,000
250 to 499	10,000
500 to 749	14,000
750 to 999	18,000
1,000 & over	20,000

#### c. Placement of Rip-Rap in Ditches

Placement of rock rip-rap would continue to be authorized in areas where it was previously placed on the sides of primary and secondary ditches. No emergent vegetation would be up-rooted or destroyed during the placement.

Placement of additional rip-rap would be authorized on the sides of ditches where high water has carried away the rock or existing rock has subsided.

### 2.) ACTIVITIES ON LEVEES:

#### a. Repair of Interior and Exterior Levees

Permittees would continue to be authorized to place material on the crown of the existing levees to repair damage from storms and to counteract subsidence of the levees. The amount of material each landownership could place annually would be based on the size of the individual ownership in accordance with the table below.

Individual Maximum Ownership Amount (cys) of Material Placed on Exterior and on Interior Levees	(Annually)	(Annually)
----------------------------------------------------------------------------------------------------	------------	------------

Under 50	1,000	1,000
50 to 249	2,000	2,000
250 to 499	3,000	3,000
500 to 749	4,000	4,000
750 to 999	5,000	5,000
1,000 & over	6,000	6,000

#### b. Coring of Levees

Levees are cored to repair holes made by burrowing mammals and to prevent water seeping through the levees. During coring a 2 foot wide trench is dug lengthwise on the crown of the levee. Material excavated from the trench is sidecast onto the crown of the levee. The material is then backfilled into the trench.

### c. Maintenance of Existing of Roads

Most of the roads on the Suisun Marsh are unimproved dirt or gravel roads. These roads provide the only automobile access to most of the marsh. Each ownership is authorized to place up to 5,000 cubic yards of earth or gravel per year to improve existing roads. Roads are subject to deterioration from pot holes and wash boarding. The roads also occasionally subside.

### d. Placement of Rip-Rap on Existing Sides of Levees

Placement of rock rip-rap would continue to be authorized in areas where it was previously placed, including the tidal sides of exterior levees and along the sides of ditches. No emergent vegetation may be up-rooted or destroyed during the placement.

Some exterior levees in areas with high wind and wave exposure have been stabilized with rip-rap and require maintenance. When rip-rap is lost during storm events, rock is added on the crown of the levee slides then slides down the slope.

## 3.) Activities in Managed Wetlands

### a. Grading and Raising the Elevation of Managed Wetlands

The managed wetlands are graded to expand desired wetland habitats, obtain material for levee maintenance, improve water management capability and level subsided areas. The amount of material the landowners could move would be limited in accordance with the following table. No material would be imported to the project site.

Individual Ownership (Acreage)	Annual Grading Limitation (cys)
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under 50	4,000
50 to 249	8,000
250 to 499	12,000
500 to 749	16,000
750 to 999	20,000
1,000 & over	24,000

### b. Discing

Discing is done by dragging metal rakes or discs behind tractors. Discing often occurs after managed wetlands are burned to turn over the seed bed, promote new vegetation, create open water habitat or reduce mosquito habitat.

### c. Installation of Permanent and Portable Pumps and Pump Platforms

Pumps enable the landowners to pump water that cannot be drained effectively via gravity through the water control structures. Pumps reduce the amount of time it takes for water to drain off a managed wetland.

They are located near the water control structures. Pump platforms are small areas of earthen fill which support the pumps, or are small wooden structures built above the managed wetlands or sloughs.

### d. Creation of Waterfowl Nesting Islands and Habitat

As shown on sheet 7, these are typically upland areas created during the grading of the managed wetlands. Waterfowl islands are successful nesting habitats because they provide isolation from terrestrial predators.

### e. Relocation or Installation of Duck Hunting Blinds

A duck hunting blind is typically a metal or fiberglass tank buried in the ground. As shown on sheet 7, typically there is a small island surrounding the blind to promote vegetation to hide the blind. Under the



RGP3 each ownership can relocate or install 5 blinds annually.

#### 4.) Activities Associated with Water Control Structures

##### a. Replacement and Maintenance of Water Control Structures

Metal water control structures deteriorate by oxidation and rust. Typically the life of these metal structures is about eight years. Plastic and vinyl water control structures have a longer useful life but are not appropriate for all applications.

To replace a water control structure, the landowner typically assembles the new structure, digs a trench over the existing culvert, removes the old structure and places the new one then back fills the trench. If a bulkhead is present, it is cut over the pipe and removed, then replaced after installation. Occasionally a water control structure is replaced with a larger structure to increase water management capabilities.

##### b. Installation of New Interior or Exterior Water Control Structures

The installation of a new water control structure is done in a manner similar to the replacement of an existing water control structure. The RGP3 authorizes the annual installation of 50 new interior and exterior water control structures throughout the marsh.

##### c. Fish Screens

Fish screens are installed on water control intake structures (flood gates) which are used to divert water from bays or sloughs onto the managed wetlands. The screens prevent fish from passing through exterior water control structures and then stranded in the ditches or on the managed wetlands.

Annually up to 1,000 square feet of wetlands in throughout the marsh may be filled during the installation of fish screens.

#### 5.) Permit Administration:

There are two procedures for authorization: routine and alternative.

##### a. Routine Procedures

The routine authorizations take up to 30 days to authorize. This process would be followed in most cases. Under the routine authorizations, the following steps would continue to apply:

(1) Landowners, including the California Department of Fish and Game (CA FG), would plan a project and fill out a work request form, then submit the form and accompanying maps to the Suisun Resource Conservation District (SRCD).

(2) The SRCD would then prioritize and compile the requests and submit monthly Proposed Work Reports describing the proposed work to the Corps of Engineers.

(3) The Corps would have 30 days to verify if proposed work is authorized by this Regional Permit. If proposed work can not be authorized under the Regional Permit the Corps will notify the SRCD and landowner as soon as it makes its determination.

(4) If a project is authorized the SRCD will notify the landowner.

##### b. Alternative Procedures

The alternative proposed work procedures would normally be used when something unexpected happens such as when a water control structure rusts through and starts leaking. When using the alternative work procedures, the landowner would apply directly to the Corp and send a copy of the application to the SRCD. The Corps would verify if

the proposed work could be authorized under the RGP3 within 45 days.

### **C. Mitigation:**

As mitigation for impacts to endangered species during the construction and operation of the Salinity Control Facilities (e.g. Montezuma Salinity Control Gates, Roaring River Distribution System, and Morrow Island Distribution System) and for the landowners management activities in the marsh, the California Department of Fish and Game has agreed to manage 1,000 acres of state lands as endangered California clapper rail and salt marsh harvest mouse habitat. These mitigation areas are shown on figure 1.

This mitigation agreement is part of the Suisun Marsh Preservation Agreement (SMPA) signed by the California Department of Water Resources, Bureau of Reclamation, U.S. Department of Fish and Game, and the Suisun Resource Conservation District. These four agencies form the Environmental Coordination Advisory Team (ECAT) which meets regularly with the US Fish and Wildlife Service and the US Army Corps of Engineers to ensure compliance with the mitigation and monitoring requirements of the SMPA, and to provide technical guidance and oversight of all SMPA mitigation, management and restoration programs.

### **3. STATE APPROVALS:**

Under Section 401 of the Clean Water Act (33 U.S.C. Section 1341), an applicant for a Corps permit must obtain a State water quality certification or waiver before a Corps permit may be issued. Currently there is a State water quality certification in place (issued March 7, 2000), that contains no specific expiration date. The USACE therefore presumes the current water quality certification will remain valid. The San Francisco Bay Regional Water Quality Board (BCDC) certification is authorized under the Individual Ownership Management Plan, under the 1976 Suisun Marsh Protection Plan.

Those parties concerned with any water quality issues that may be associated with this project should write to the Executive Officer, California Regional Water Quality Control Board, San Francisco Bay Region, 1515 Clay Street, Suite 1400, Oakland, California 94612, by the close of the comment period of this public notice.

The applicants and the Corps of Engineers are working with the San Francisco Bay Conservation and Development Commission to ensure that any work done under the RGP3 also complies with the requirements of the Coastal Zone Management Act (CZMA).

### **4. NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) STATUS:**

The Corps of Engineers has assessed the environmental impacts of the action proposed in accordance with the requirements of the National Environmental Policy Act of 1969 (Public Law 91-190), and pursuant to Council on Environmental Quality's Regulations, 40 CFR 1500-1508, and Corps of Engineers' Regulations, 33 CFR 230 and 325, Appendix B. Unless otherwise stated, the Preliminary Environmental Assessment describes only the impacts (direct, indirect, and cumulative) resulting from activities within the jurisdiction of the Corps of Engineers.

The Preliminary Environmental Assessment resulted in the following findings:

Long term changes could occur to the existing substrate elevations and/or circulation patterns in the marsh due to the excavation of new ditches, installation of culverts and water control structures, and installation of pumps. However, since there are not expected to be radical changes in management within the marsh local changes to wetlands are not expected to substantially alter wetland amounts or types.

Increased ability to manipulate water in the marsh would have long term impacts on the availability, elevation and depths of the natural water supply. Since water management is not likely to radically change in the next five years, availability of water for organisms living in the marsh is not expected to change.

Project activity would have minor, short-term impacts on air quality in the vicinity of the construction sites. Based on the relative minor size of the proposed project and limited to an evaluation of air quality impacts only within Corps of Engineers' (Corps) jurisdictional areas, the Corps has determined that the total direct and non-direct project emissions would not exceed the de minimis threshold levels of 40 CFR 93.153. Therefore, the proposed project would conform to the State air quality implementation Plan (SIP) for California.

Grading of uplands (non-wetlands) may occur to obtain material to raise the level of managed wetlands or to obtain material for levee repair.

Any authorized work may cause short-term localized changes to the appearance of the marsh. However, there is not expected to be any long-term changes to aesthetic quality.

The work authorized by the RGP3 is not expected to have any adverse impacts to the local or regional economy.

**ESA COMPLIANCE** - The U.S. Army Corps of Engineers completed formal Section 7 consultation with the National Marine Fisheries Service (NMFS) February 2, 2006, on the following federally listed fish species: Southern DPS of North American Green Sturgeon (*Acipenser medirostris*), Central California Coast threatened steelhead (*Oncorhynchus mykiss*), Central Valley threatened steelhead (*Oncorhynchus mykiss*), Central Valley spring-Run threatened chinook (*Oncorhynchus tshawytscha*), Sacramento River winter-run endangered chinook (*Oncorhynchus tshawytscha*), Central California Coast threatened coho salmon

(*Oncorhynchus kisutch*), and designated critical habitat for these fish species. In addition, the Corps also completed formal Section 7 consultation with the NMFS for potential adverse effects to Essential Fish Habitat (EFH) for various life stages of fish species managed with the Pacific Groundfish Fishery Management Plan, Coastal Pelagics Fishery Management Plan, and Pacific Coast Salmon Fishery Management Plan, under the Magnuson-Stevens Fishery Conservation and Management Act.

The U.S. Army Corps of Engineers completed formal Section 7 consultation with the U.S. Fish and Wildlife Service for the following endangered birds, mammals, and plants: salt marsh harvest mouse (*Reithrodontomys raviventris*), California clapper rail (*Rallus longirostris obsoletus*), black rail (*Laterallus jamaicensis coturniculus*), Suisun ornate shrew (*Sorex ornatus sinuosus*), hispid bird's beak (*Cordylanthus mollis ssp. Hispidus*), delta smelt (*Hypomesus transpacificus*), and delta tule pea (*Lathyrus jepsonii var. jepsonii*). The work authorized under this permit could adversely and/or beneficially impact endangered species. Currently the USACE conducts formal ESA Section 7 consultation for any impacts that may affect the aforementioned species and/or habitat.

Landownerships on which California Clapper Rail habitat has been identified are identified on figure two. Waterways with Chinook Salmon and Delta Smelt diversion restrictions are shown in figures 3 and 4.

## **5. EVALUATION OF ALTERNATIVES:**

Evaluation of this activity's impacts includes application of the guidelines promulgated by the Administrator of the Environmental Protection Agency under Section 404(b) of the Clean Water Act (33 U.S.C. 1344(b)).

## **6. PUBLIC INTEREST EVALUATION:**

The decision whether to re-issue the permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity and its intended use on the public interest. Evaluation of the probable impacts which the proposed activity may have on the public interest requires a careful weighing of all those factors which become relevant in each particular case. The benefits which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. The decision whether to authorize a proposal, and if so the conditions under which it will be allowed to occur, are therefore determined by the outcome of the general balancing process. That decision will reflect the national concern for both protection and utilization of important resources. All factors which may be relevant to the proposal must be considered including the cumulative effects thereof. Among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people.

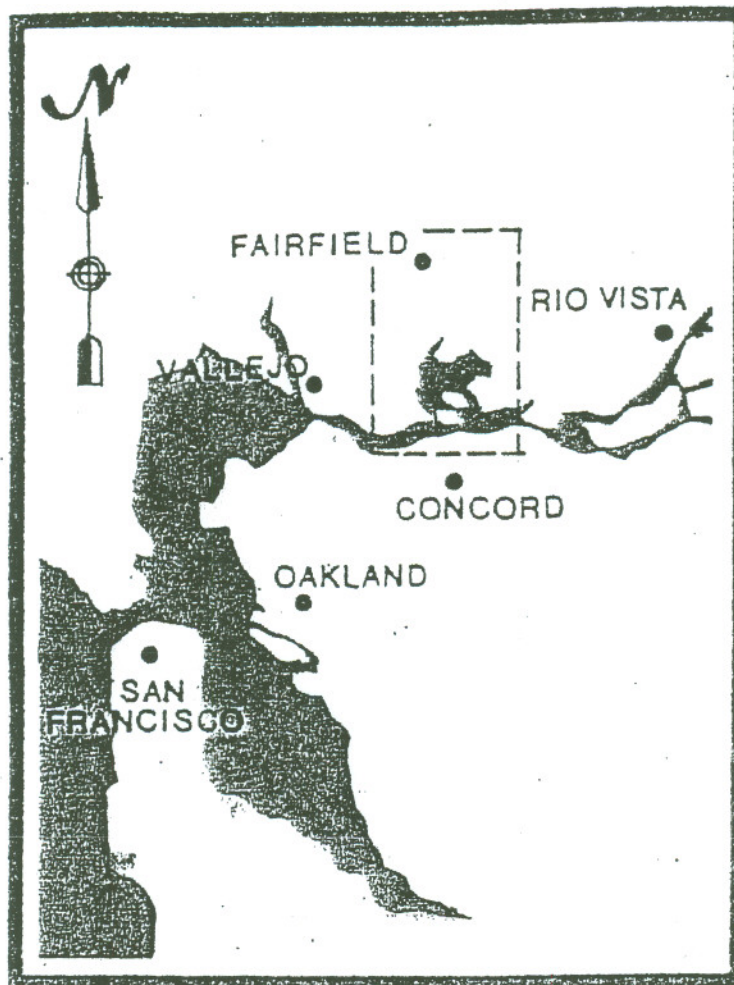
## **7. CONSIDERATION OF COMMENTS:**

The U.S. Army Corps of Engineers is soliciting comments from the public, Federal, State and local agencies and officials, Indian Tribes, and other interested parties in order to consider and evaluate the impacts of this activity. Any comments received will be considered by the U.S. Army Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment

and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

## **8. SUBMISSION OF COMMENTS:**

Interested parties may submit in writing any comments concerning this activity. Comments should include the applicant's name, the number, and the date of this notice and should be forwarded so as to reach this office within the comment period specified on page one of this notice. Comments should be sent to the Regulatory Branch. It is Corps policy to forward any such comments which include objections to the applicant for resolution or rebuttal. Any person may also request, in writing, within the comment period of this notice that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing. Additional details may be obtained by contacting the applicant whose address is indicated in the first paragraph of this notice, or by contacting David Wickens of our office at telephone number 415-503-6787 or sending e-mail to his email address at david.m.wickens@spd02.usace.army.mil. Details on any changes of a minor nature which are made in the final permit action will be provided on request.



Sheet 1 of 17

Department of the Army  
Regional General Permit  
Number 3 for Activities  
in the Suisun Marsh  
(DA File # 24215N)

PURPOSE: CONDUCTING ANNUAL WETLANDS  
MAINTENANCE ACTIVITIES TO PROTECT  
AND ENHANCE SUISUN MARSH  
MANAGED WETLANDS.

DATUM: MLLW

PROPERTY OWNERS:

1. Suisun Resource Conservation District Private  
Landowners
2. California Department of Fish & Game

#### VICINITY MAP

No Scale

SUISUN RESOURCE CONSERVATION DISTRICT  
2544 GRIZZLY ISLAND RD.  
SUISUN, CA 94585

CALIFORNIA DEPARTMENT OF FISH & GAME  
2548 GRIZZLY ISLAND RD.  
SUISUN, CA 94585

IN: SUISUN MARSH NEAR FAIRFIELD

AT: INDIVIDUALLY OWNED STATE AND PRIVATE  
PROPERTIES

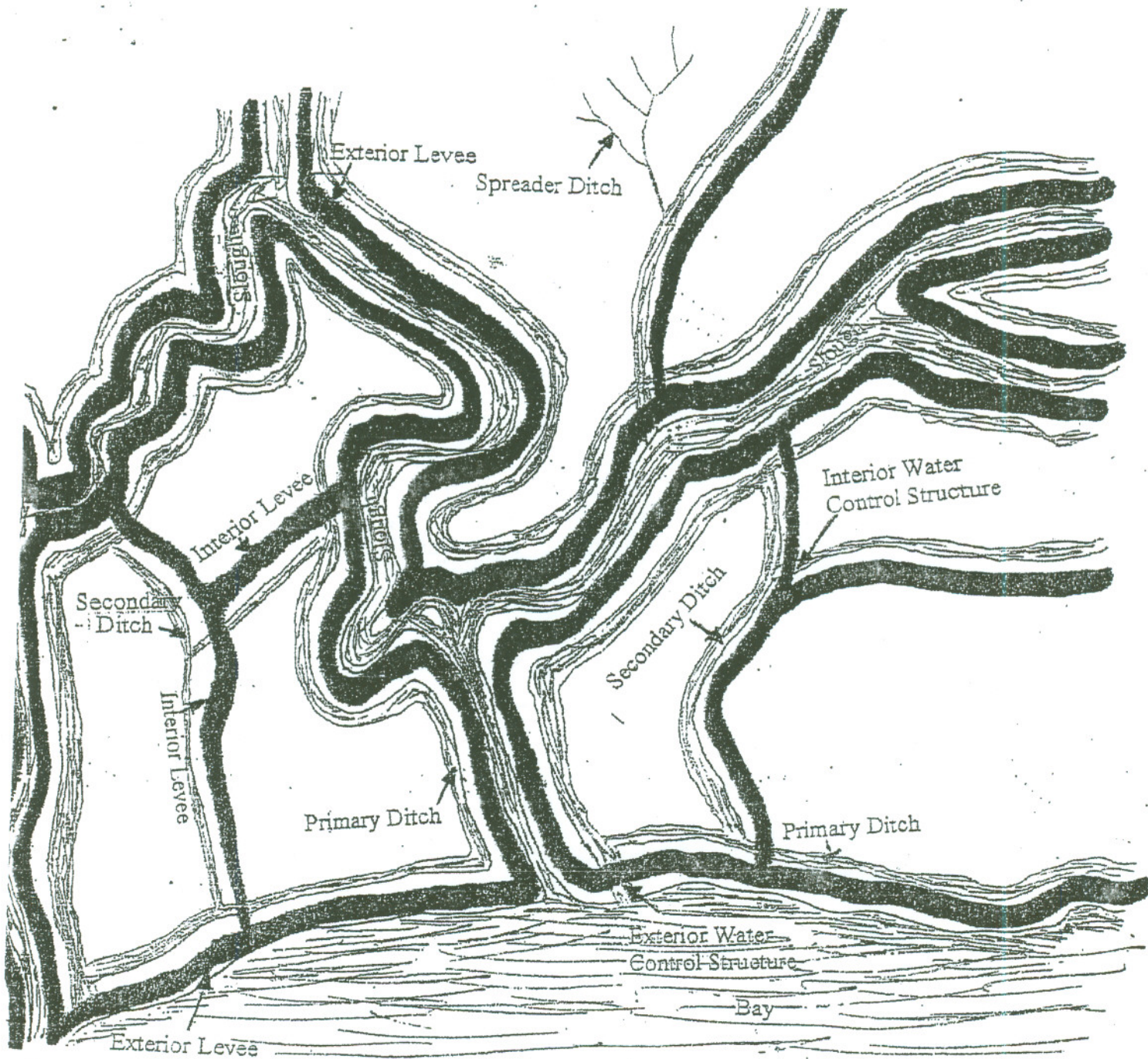
COUNTY OF: SOLANO STATE: CA

APPLICATION BY: 1) SUISUN RESOURCE  
CONSERVATION DISTRICT

2) CA. DEPT. FISH & GAME

SHEET OF DATE 5/18/99





# Schematic Islands in Suisun Marsh

Sheet 3

Department of the Army  
Regional General Permit  
Number 3 for Activities  
in the Suisun Marsh  
(DA File # 24215N)

PROPOSE: CONDUCTING ANNUAL WETLANDS  
MAINTENANCE ACTIVITIES TO PROTECT  
AND ENHANCE SUISUN MARSH  
MANAGED WETLANDS.

TUM: MLLW

PROPERTY OWNERS:

Suisun Resource Conservation District Private  
Landowners  
California Department of Fish & Game

## VICINITY MAP

No Scale

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2544 GRIZZLY ISLAND RD.  
SUISUN, CA 94585

CALIFORNIA DEPARTMENT OF FISH & GAME  
2548 GRIZZLY ISLAND RD.  
SUISUN, CA 94585

IN: SUISUN MARSH NEAR FAIRFIELD

AT: INDIVIDUALLY OWNED STATE AND PRIVATE  
PROPERTIES

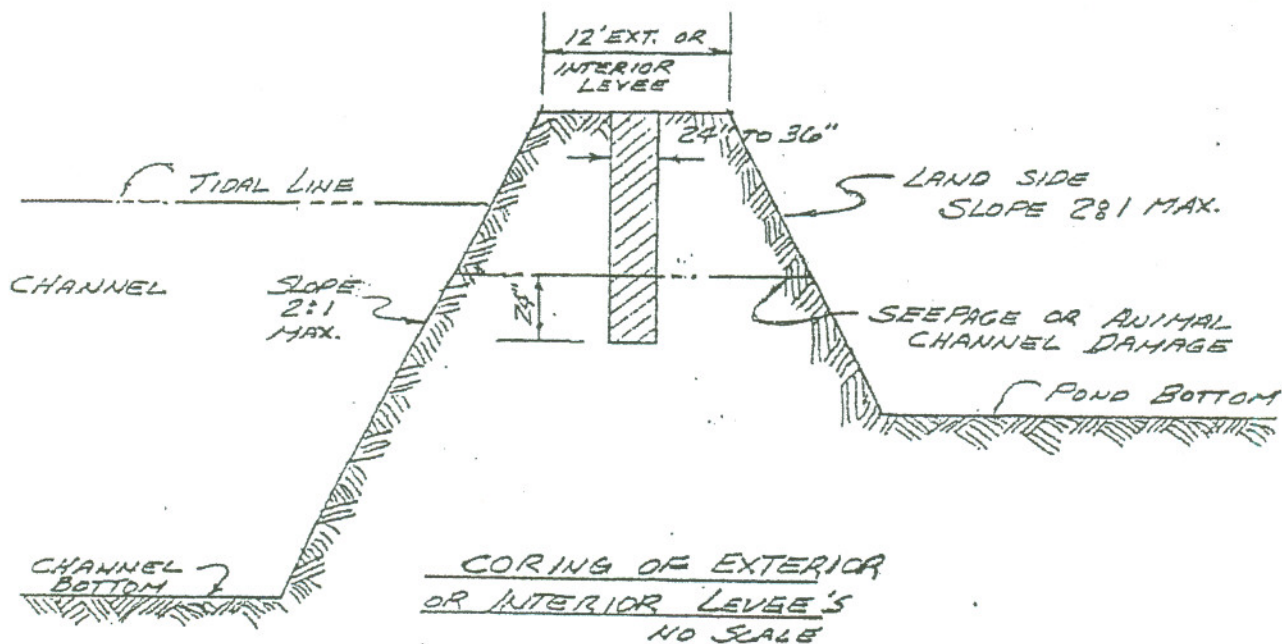
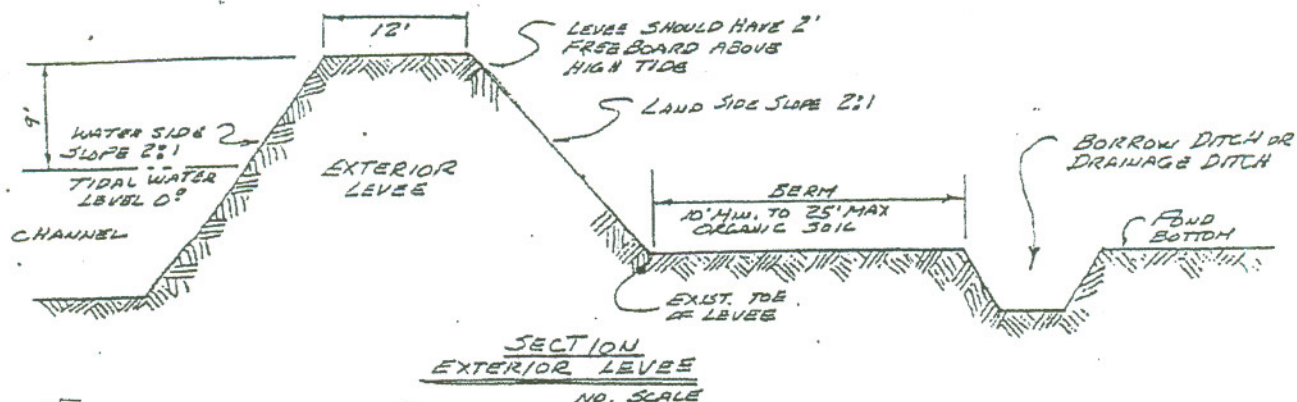
COUNTY OF: SOLANO STATE: CA

APPLICATION BY: 1) SUISUN RESOURCE  
CONSERVATION DISTRICT

2) CA. DEPT. FISH & GAME

SHEET OF DATE 5/18/99





Sheet 4 of

Department of the Army  
Regional General Permit  
Number 3 for Activities  
in the Suisun Marsh  
(DA File # 24215N)

PURPOSE: CONDUCTING ANNUAL WETLANDS  
MAINTENANCE ACTIVITIES TO PROTECT  
AND ENHANCE SUISUN MARSH  
MANAGED WETLANDS.

DATUM: MLLW

PROPERTY OWNERS:

1. Suisun Resource Conservation District Private Landowners
2. California Department of Fish & Game

### TYPICAL CROSS SECTIONS

No Scale

SUISUN RESOURCE CONSERVATION DISTRICT  
2544 GRIZZLY ISLAND RD.  
SUISUN, CA 94585

CALIFORNIA DEPARTMENT OF FISH & GAME  
2548 GRIZZLY ISLAND RD.  
SUISUN, CA 94585

IN: SUISUN MARSH NEAR FAIRFIELD  
AT: INDIVIDUALLY OWNED STATE AND PRIVATE  
PROPERTIES

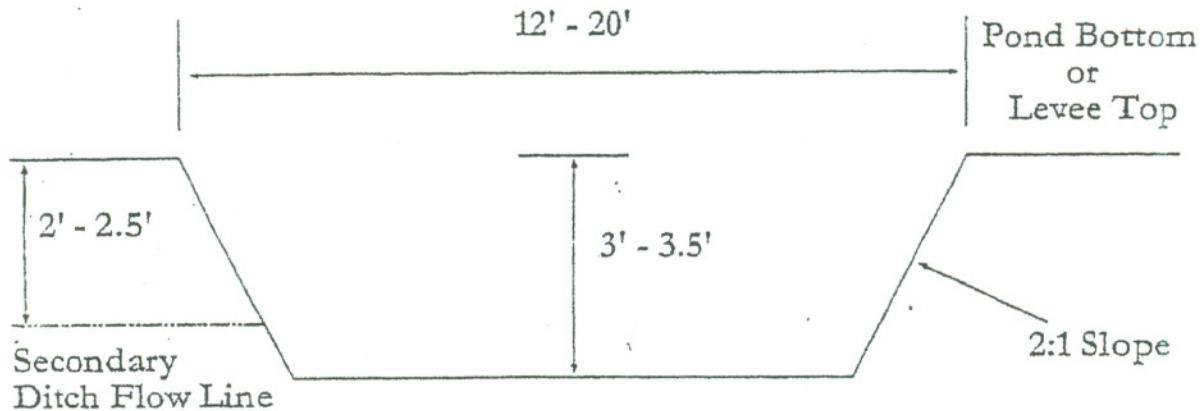
COUNTY OF: SOLANO STATE: CA

APPLICATION BY: 1) SUISUN RESOURCE  
CONSERVATION DISTRICT

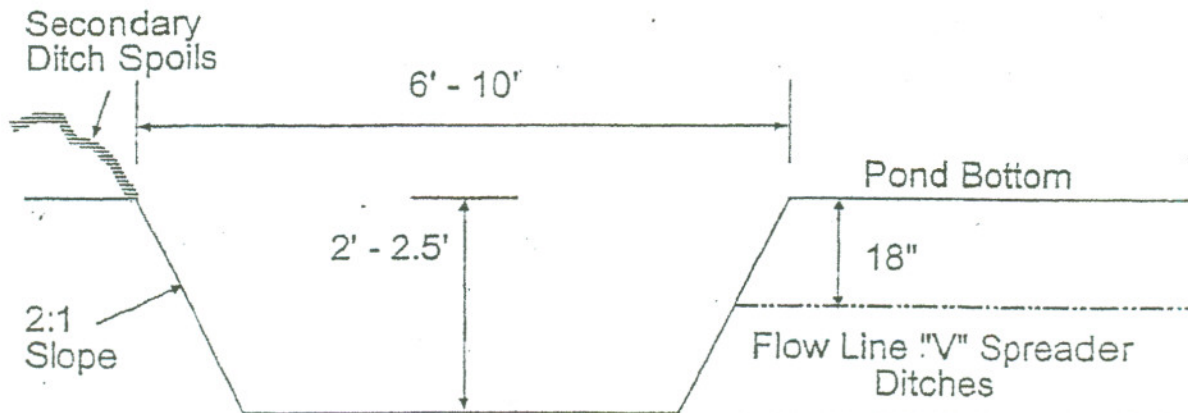
2) CA. DEPT. FISH & GAME

SHEET OF DATE 5/18/99

## Cross Section of Primary Ditch



## Cross Section of Secondary Ditch



Sheet 5

Department of the Army  
Regional General Permit  
Number 3 for Activities  
in the Suisun Marsh  
(DA File # 2421 5N)

PURPOSE: CONDUCTING ANNUAL WETLANDS  
MAINTENANCE ACTIVITIES TO PROTECT  
AND ENHANCE SUISUN MARSH  
MANAGED WETLANDS.

DATUM: MLLW

PROPERTY OWNERS:

1. Suisun Resource Conservation District Private Landowners
2. California Department of Fish & Game

### TYPICAL CROSS SECTIONS No Scale

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SUISUN, CA 94585

CALIFORNIA DEPARTMENT OF FISH & GAME  
2548 GRIZZLY ISLAND RD.  
SUISUN, CA 94585

IN: SUISUN MARSH NEAR FAIRFIELD

AT: INDIVIDUALLY OWNED STATE AND PRIVATE  
PROPERTIES

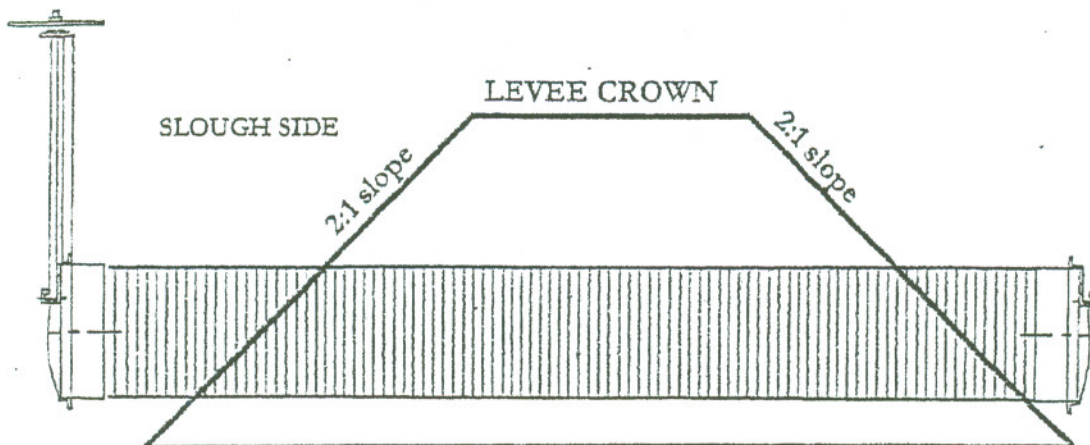
COUNTY OF: SOLANO STATE: CA

APPLICATION BY: 1) SUISUN RESOURCE  
CONSERVATION DISTRICT

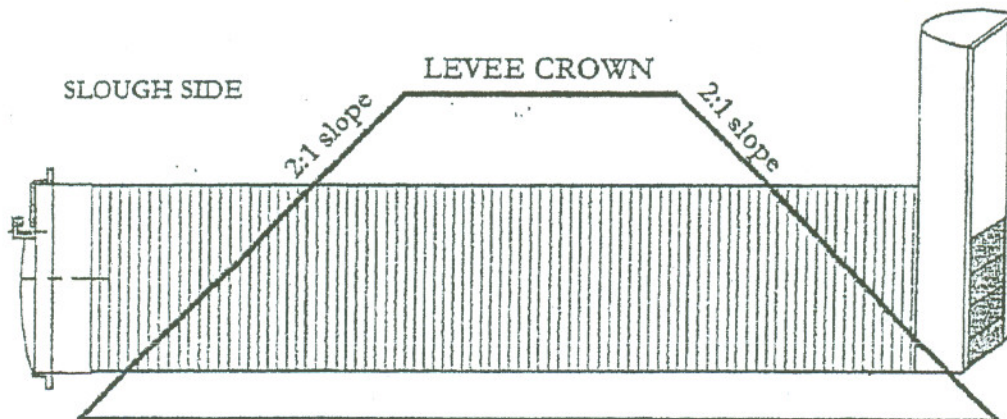
2) CA. DEPT. FISH & GAME

SHEET OF DATE 5/18/99





Typical Levee Section For a Flood Gate



Typical Levee Section For a Drain Gate

Sheet 6

Department of the Army  
Regional General Permit  
Number 3 for Activities  
in the Suisun Marsh  
(DA File # 24215N)

PURPOSE: CONDUCTING ANNUAL WETLANDS  
MAINTENANCE ACTIVITIES TO PROTECT  
AND ENHANCE SUISUN MARSH  
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DATUM: MLLW

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#### TYPICAL CROSS SECTIONS

No Scale

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CALIFORNIA DEPARTMENT OF FISH & GAME  
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IN: SUISUN MARSH NEAR FAIRFIELD

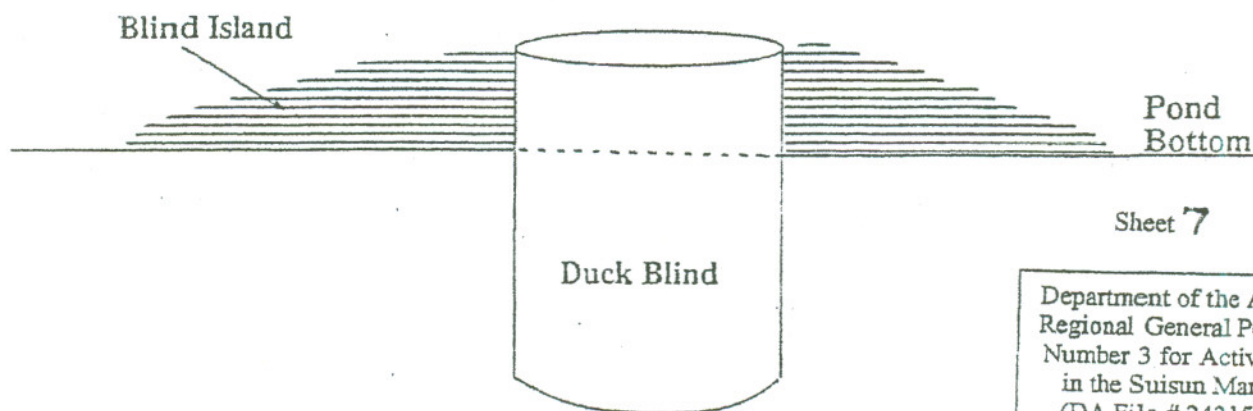
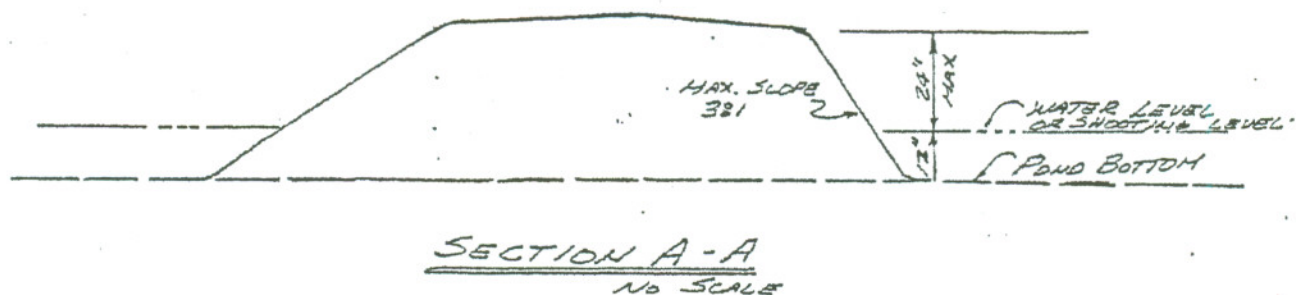
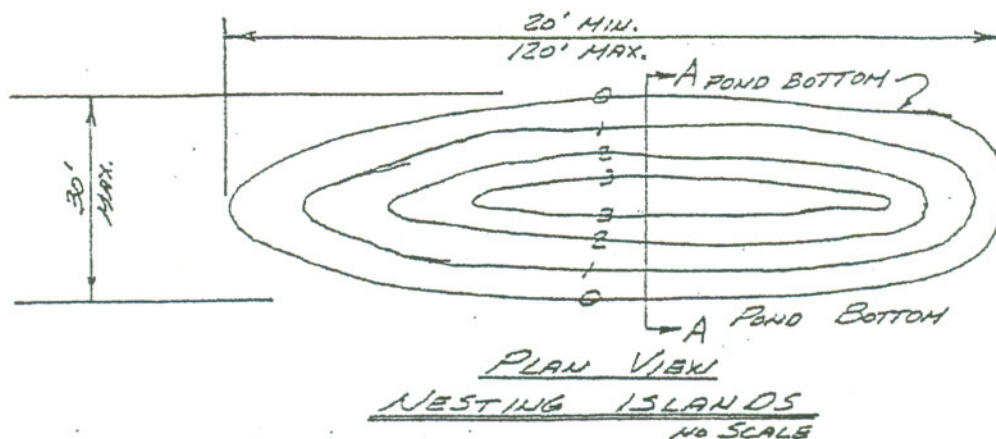
AT: INDIVIDUALLY OWNED STATE AND PRIVATE  
PROPERTIES

COUNTY OF: SOLANO . STATE: CA

APPLICATION BY: 1) SUISUN RESOURCE  
CONSERVATION DISTRICT

2) CA. DEPT. FISH & GAME

SHEET OF DATE 5/18/99

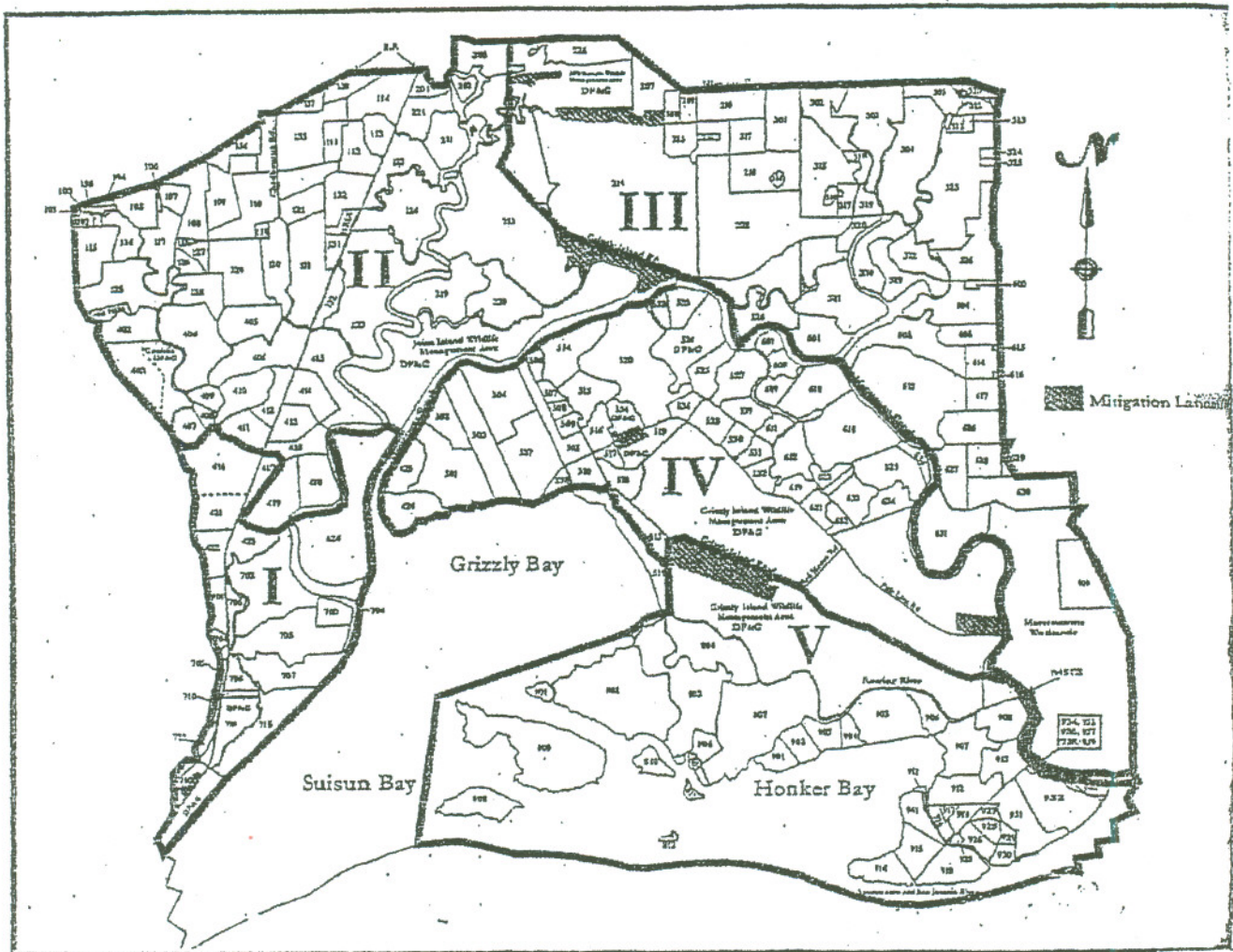


Typical Duck Blind and Blind Island Cross Section

<p>PURPOSE: CONDUCTING ANNUAL WETLANDS MAINTENANCE ACTIVITIES TO PROTECT AND ENHANCE SUISUN MARSH MANAGED WETLANDS.</p> <p>DATUM: MLLW</p> <p>PROPERTY OWNERS:</p> <ol style="list-style-type: none"> <li>1. Suisun Resource Conservation District Private Landowners</li> <li>2. California Department of Fish &amp; Game</li> </ol>	<p>PLAN VIEW &amp; TYPICAL CROSS SECTIONS</p> <p>No Scale</p> <p>SUISUN RESOURCE CONSERVATION DISTRICT 2544 GRIZZLY ISLAND RD. SUISUN, CA 94585 CALIFORNIA DEPARTMENT OF FISH &amp; GAME 2548 GRIZZLY ISLAND RD. SUISUN, CA 94585</p>	<p>IN: SUISUN MARSH NEAR FAIRFIELD</p> <p>AT: INDIVIDUALLY OWNED STATE AND PRIVATE PROPERTIES</p> <p>COUNTY OF: SOLANO STATE: CA</p> <p>APPLICATION BY: 1) SUISUN RESOURCE CONSERVATION DISTRICT 2) CA. DEPT. FISH &amp; GAME</p> <p>SHEET OF DATE 5/18/99</p>
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Department of the Army  
Regional General Permit  
Number 3 for Activities  
in the Suisun Marsh  
(DA File # 24215N)





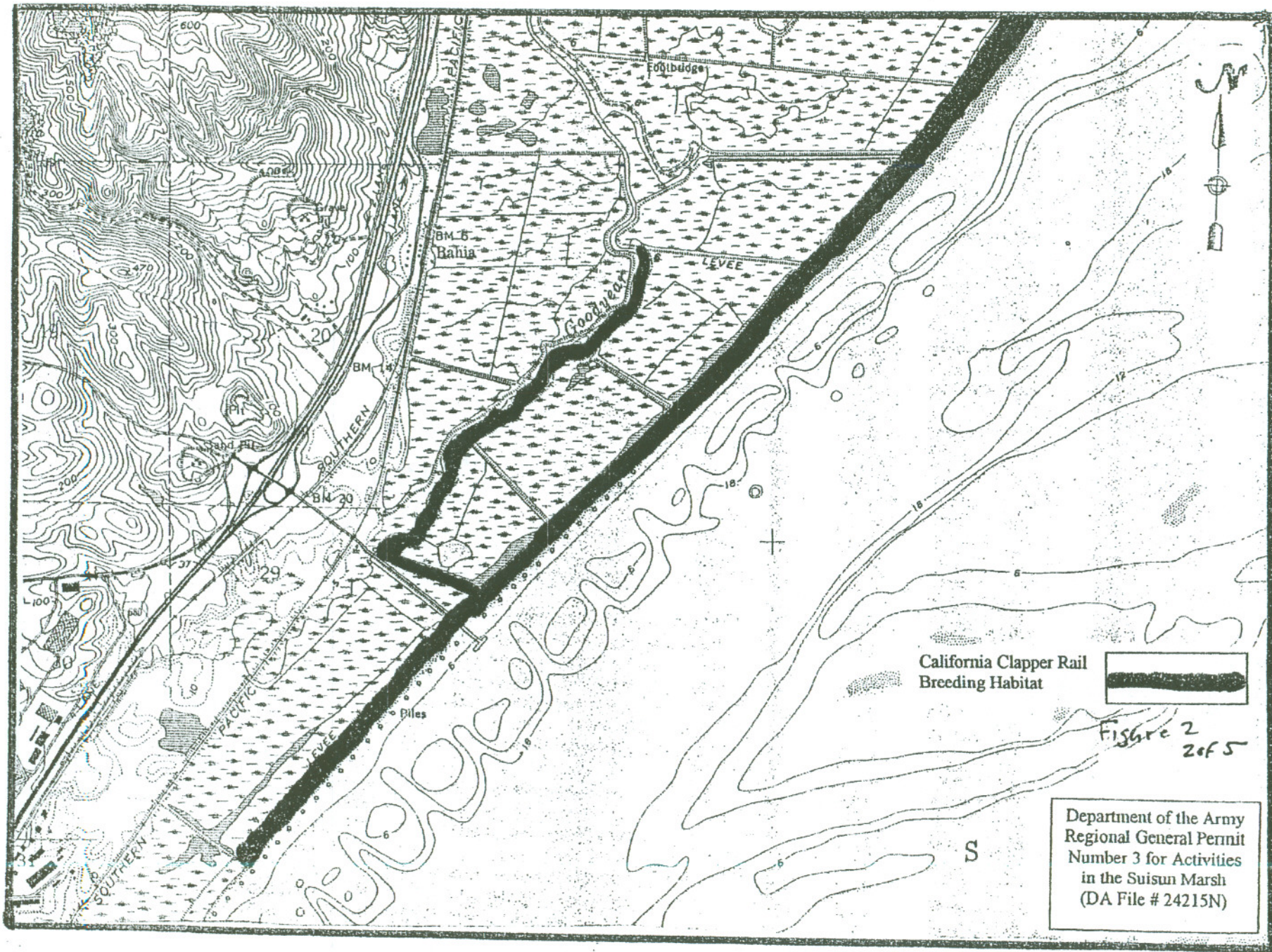
SALT MARSH HARVEST MOUSE MITIGATION AREAS

Figure 1

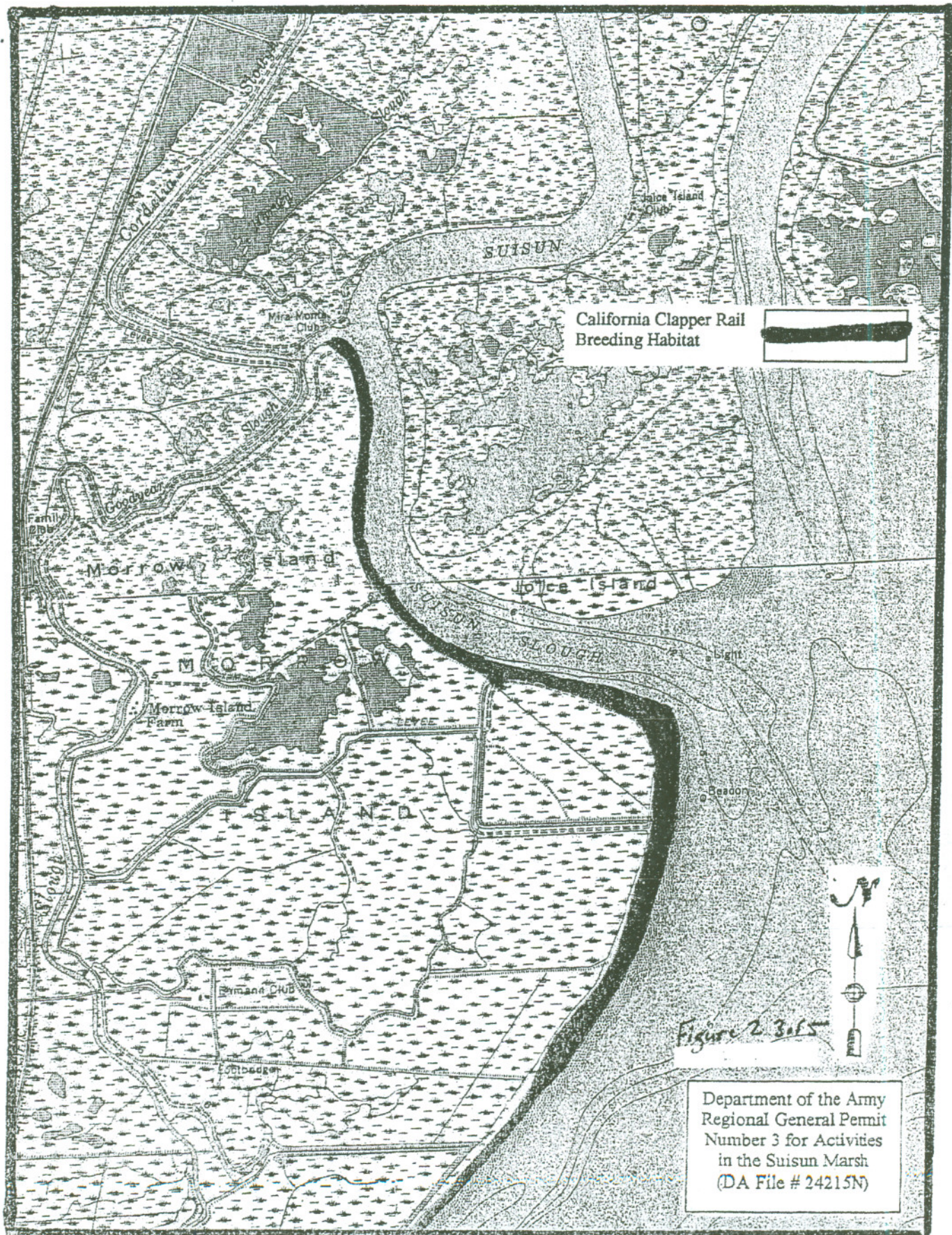
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SUISUN RESOURCE CONSERVATION DISTRICT  
OWNERSHIP LOCATION MAP

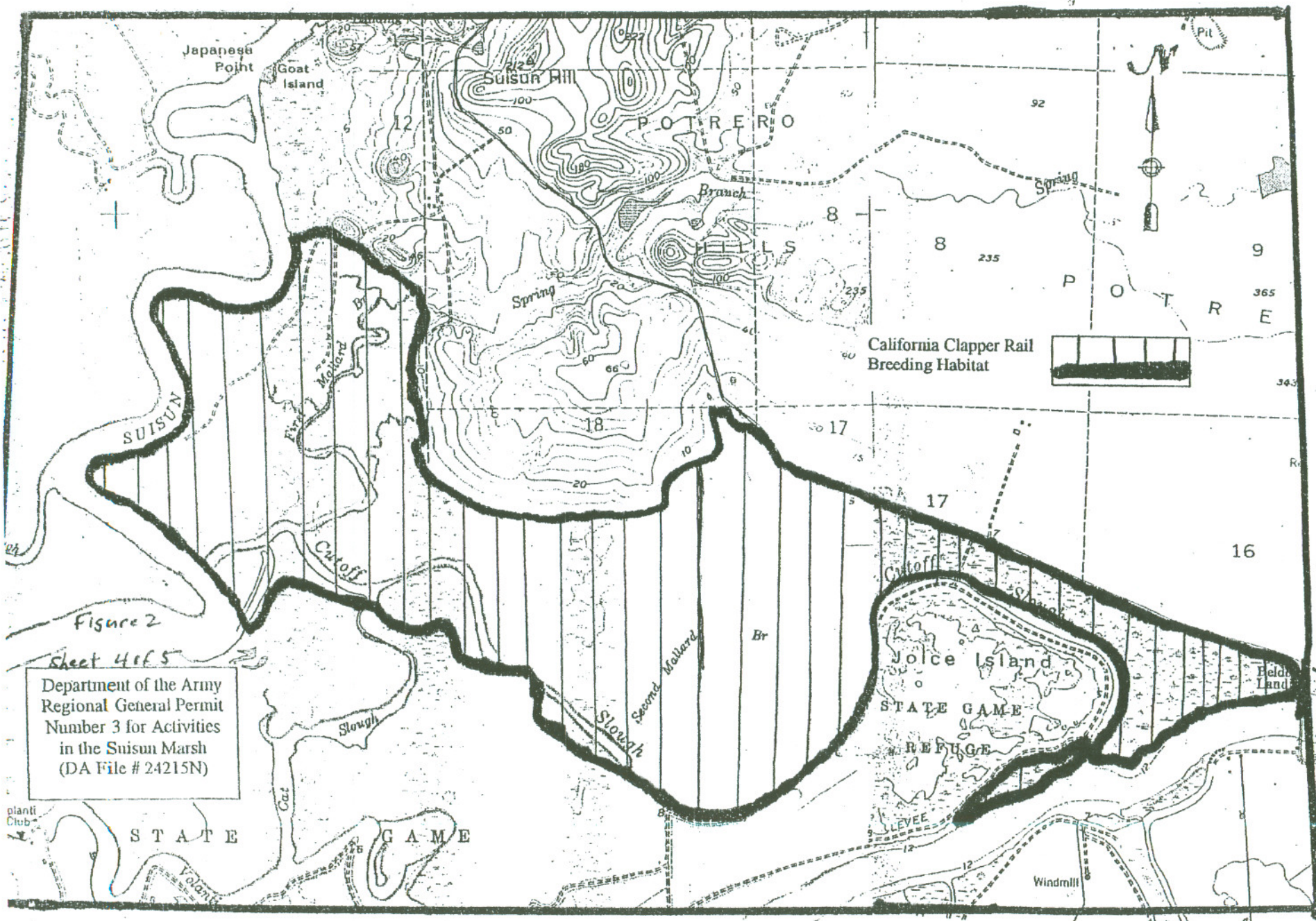




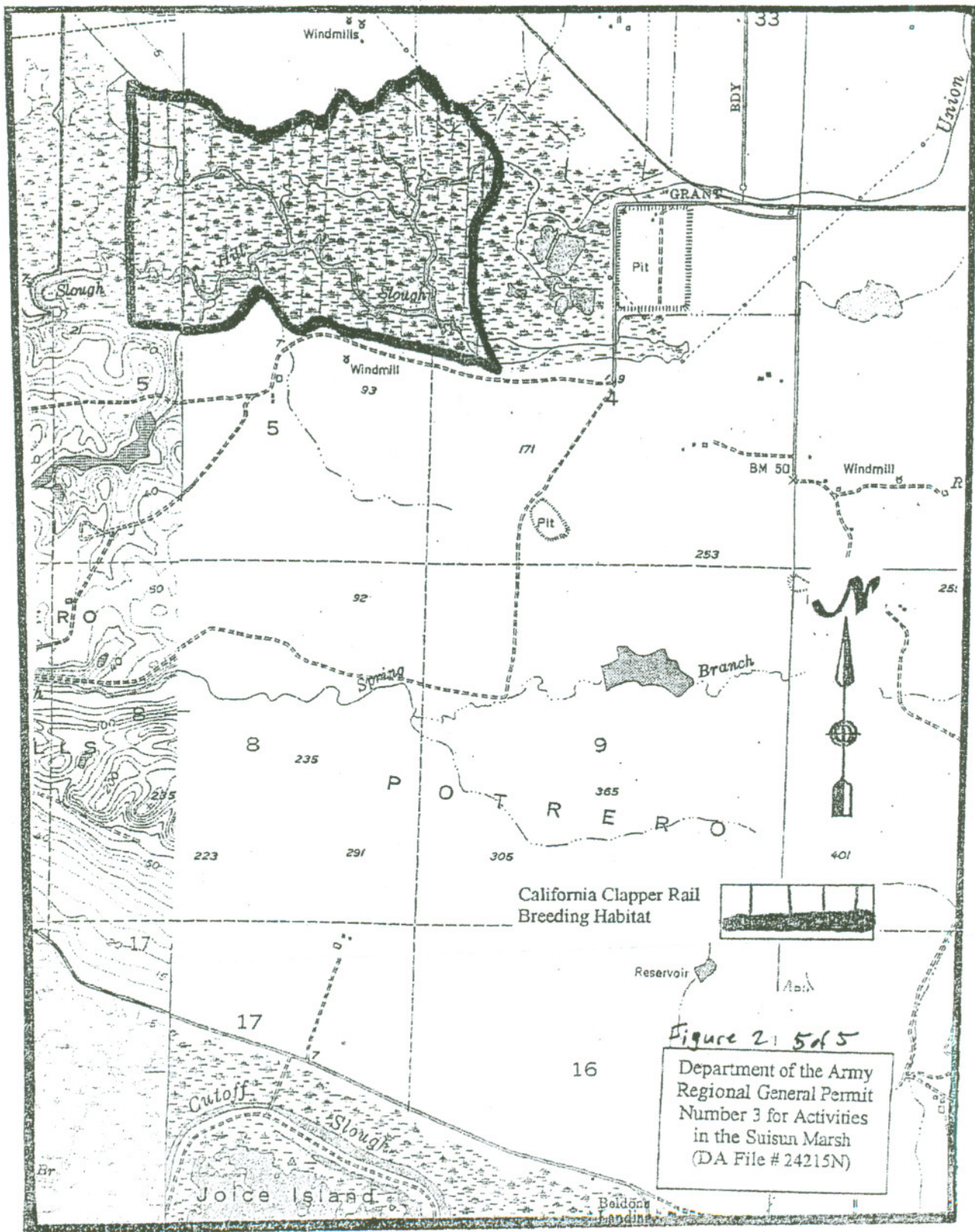




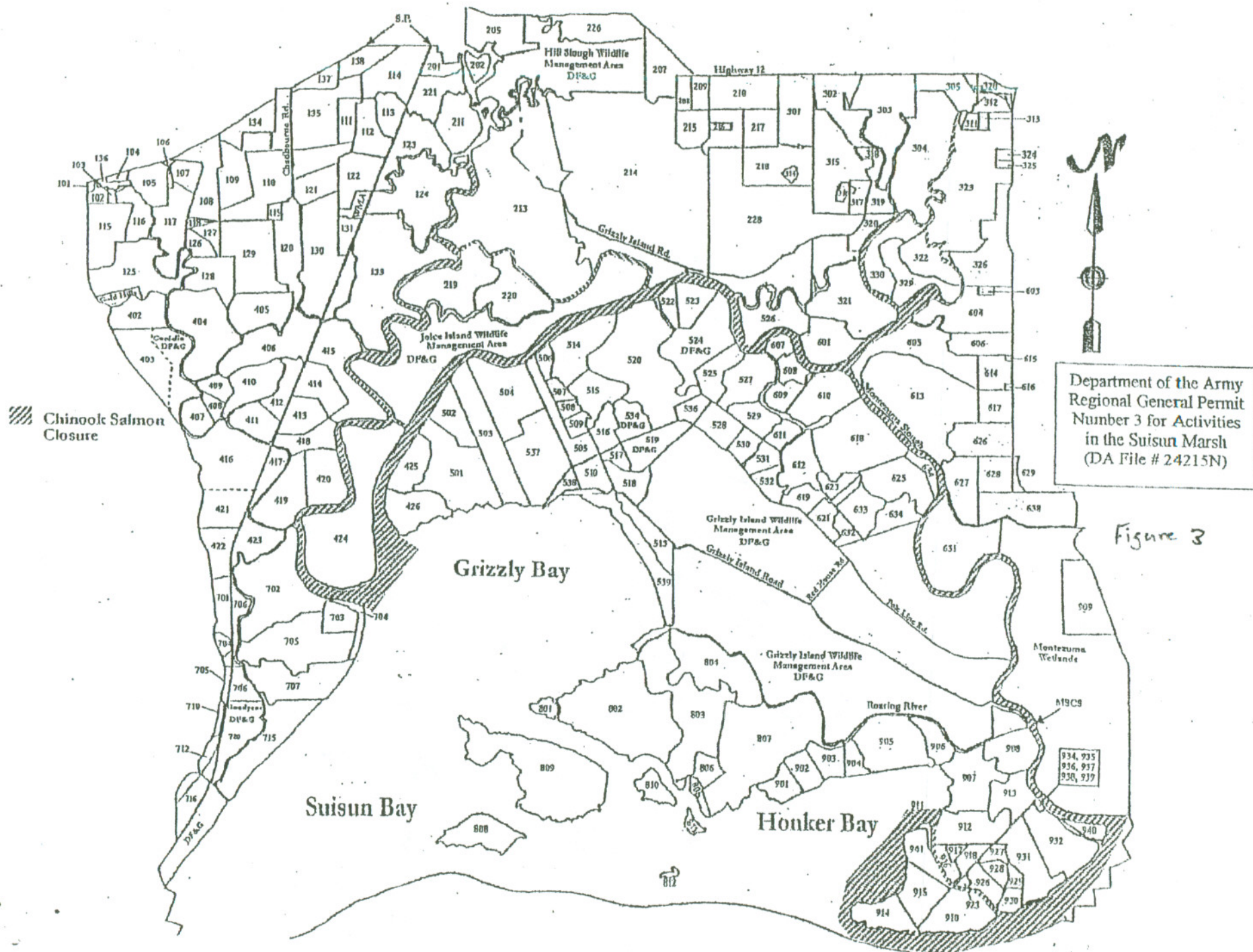




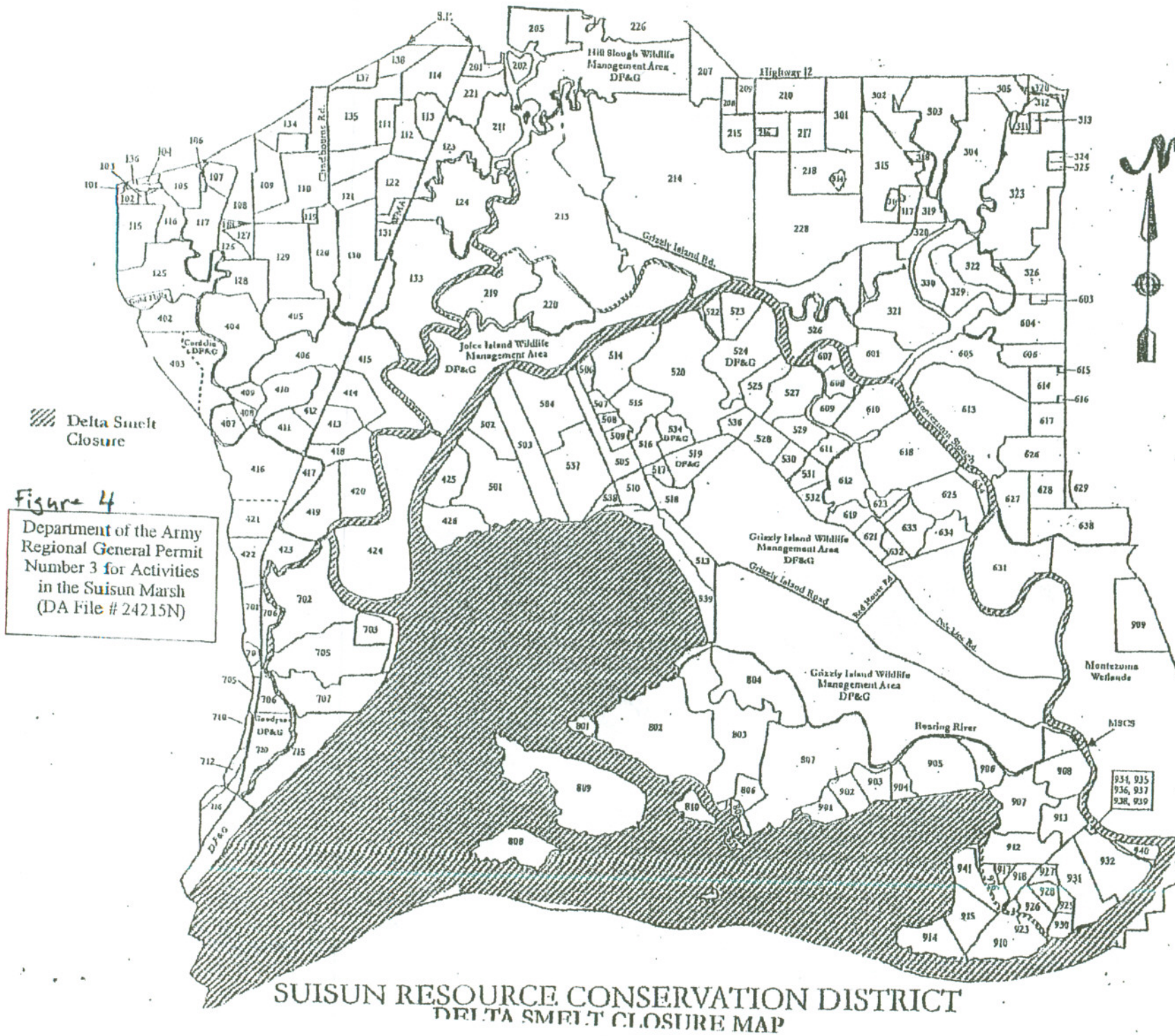












SUISUN RESOURCE CONSERVATION DISTRICT  
DELTA SMELT CLOSURE MAP

**DEPARTMENT OF THE ARMY**  
**SAN FRANCISCO DISTRICT**  
**US ARMY CORPS OF ENGINEERS (CESPN-OR-R)**  
**1455 MARKET STREET, REGULATORY BRANCH, 16<sup>TH</sup> FLOOR**  
**SAN FRANCISCO CA 94103-1398**

**1ST CLASS MAIL**